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NON-VOLATILE MEMORY CELL, MEMORY CELL ARRANGEMENT AND METHOD FOR PRODUCTION OF A NON-VOLATILE MEMORY CELL

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The invention relates to a non-volatile memory cell, memory cell arrangement and method for production of a non-volatile memory cell. The non-volatile memory cell comprises a vertical field-effect transistor, with a nanoelement arranged as channel region and an electrical insulating layer at least partly surrounding the nanoelement as charge storage layer and as gate-insulating layer. The above is arranged such that electric charge carriers may be selectively introduced into or removed from the above and the electrical conductivity characteristics of the nanoelement may be influenced by the electrical charge carriers introduced into electrical insulating layer.

